

# Geometry Date\_\_\_\_ 1.1 Assignment Patterns & Inductive Reasoning (pp 3-6)

1. What is your name?

Sketch the next figure in the pattern.

2.



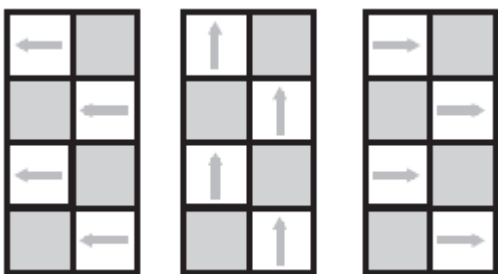
3.



4.



5.



**Geometry Date\_\_\_\_\_ 1.1 Assignment**  
**Patterns & Inductive Reasoning (pp 3-6)**

**Describe a pattern in the sequence of numbers. Predict the next number.**

**6.** 5, 8, 13, 20, 29, . . .

**7.** 0.49, 0.64, 0.81, 1, . . .

**8.** -7, -4, -1, 2, . . .

**9.**  $\frac{3}{7}, \frac{6}{5}, \frac{9}{3}, \frac{12}{1}, \dots$

**The number of bacteria after  $n$  hours is given in the table. Predict the number of bacteria after 8 hours.**

**10.**

n (hours)	1	2	3	4	5
Number of bacteria	3	6	12	24	48

**11.**

n (hours)	1	2	3	4	5
Number of bacteria	640	320	160	80	40

**Show the conjecture is false by finding a counterexample.**

**12.** The difference of two whole numbers is a whole number.

**13.** The absolute value of the sum of two numbers is the sum of their absolute values, meaning  $|a + b| = |a| + |b|$ .

# **Geometry Date\_\_\_\_\_ 1.1 Assignment** **Patterns & Inductive Reasoning (pp 3-6)**

14. If  $m \neq -1$ , then  $\frac{m}{m-1} > 1$ .

15. \_\_\_\_\_ Which number comes next in the sequence?  
 45, 90, 135, 180, ...

- A. 205
- B. 210
- C. 215
- D. 220
- E. 225

16. \_\_\_\_\_ What is the next figure in the pattern?



A.



B.



C.



D.



E.



# Geometry Date\_\_\_\_ 1.1 Assignment

## Patterns & Inductive Reasoning (pp 3-6)

### Mixed Review

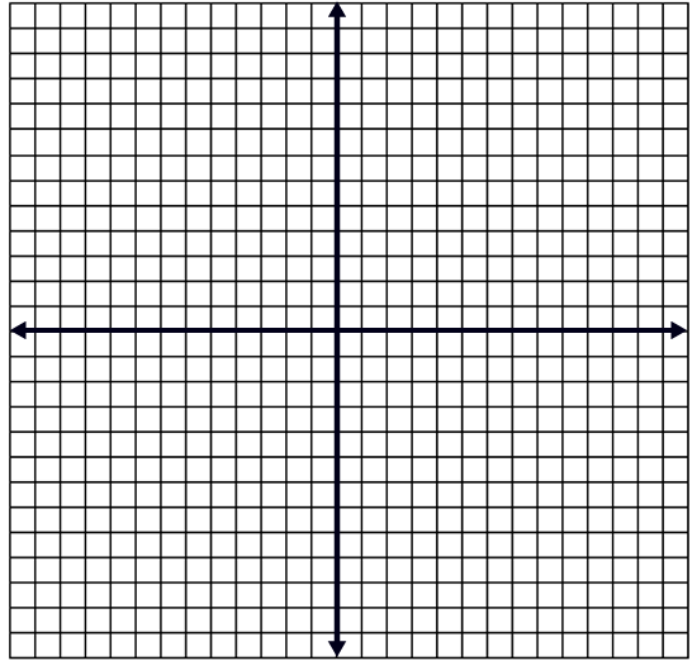
17. Plot the following points in the coordinate plane. (p 792)

A(-4, -6)

B(4, -1)

C(1, -10)

D(-2, -6)



Evaluate the expression. (p 786)

18.  $(-4)^2$

19.  $(-2)^2 + 2^2$

20.  $-7^2$

21.  $(-10)^2 + (-5)^2$

